Mr. James Alexander U.S. Steel - Gary Works One North Broadway, MS-70 Gary, Indiana 46402-3199

Re: Minor Source Modification No: 089-14424-00121

# Dear Mr. Alexander:

U.S. Steel - Gary Works applied for a Part 70 operating permit on December 13, 1996 for blast furnaces and steel mills. An application to modify the source was received on May 22, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

This project consists of upgrading the existing Electrogalvanizing Line Package Boiler (EGL-1) to increase the steam operating pressure from 100 psig to 135 psig. This will be accomplished by increasing the boiler's capacity from 38.9 MMBtu/hr to 39.147 MMBtu/hr. The upgrade will consist of the following changes to the existing boiler:

- (a) replacement of the boiler feedwater pumps to increase feedwater supply pressure;
- (b) upgrade the level control system for the water level control in the boiler drum;
- (c) upgrade the boiler drum safety relief valves; and
- (d) upgrade the steam header pressure control system.

The natural gas fuel burners and fuel supply system will not be changed as part of this project, and the capacity of the electrogalvanizing line will not be changed. This is a quality control project intended to address the problem of "bald spots" (non-uniform zinc coating thickness) in the electrogalvanizing line.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(I)(3). The source may begin operation upon issuance of the source modification approval.



Mr. James Alexander U.S. Steel - Gary Works One North Broadway, MS-70 Gary, Indiana 46402-3199

Re: Significant Source Modification No: 089-12880-00121

Dear Mr. Alexander:

U.S. Steel - Gary Works applied for a Part 70 operating permit on December 13, 1996 for blast furnaces and steel mills. An application to modify the source was received on October 10, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) The proposed changes involve the installation of three (3) fifty (50) MMBtu per hour low-NOx/flue gas recirculation burner systems (ISB001, ISB002, and ISB003) on the No. 1, No. 2, and No. 3 Sinter Strands which will use waste coke oven gas as the primary fuel and natural gas as a supplementary fuel. The purpose of the installation of these burners is to provide sufficient heat to sustain the chemical reactions necessary for efficient SO2 removal by the existing dry venturi scrubber.
- (b) The proposed changes also involve the installation of three (3) natural gas injection jets with capacities of 22 MMBtu per hour (CPNGI001), 43 MMBtu per hour (CPNGI002), and 122 MMBtu per hour (CPNGI003) on the coke oven battery system. These jets will inject natural gas into the coke oven battery underfire coke oven gas supply line as needed to help comply with the applicable SO2 emission limit when the coke oven gas desulfurization plant is down for maintenance.

The Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(I)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.



Mr. James Alexander U.S. Steel-Gary Works One North Broadway Gary, IN 46402-3199

Re: Minor Source Modification No: 089-12137-00121

Dear Mr. James Alexander

U.S. Steel-Gary Works applied for a operating permit on December 13, 1996 for blast furnaces and steel mills. An application to modify the source was received on April 5, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

Proposed Replacement Changes to Boiler Nos. 1,2,3

(a) The proposed changes to the boilers involve replacement in kind of the pilots, replacement in kind of the burners and replacement of the fans with larger ones. The forced draft fans, which provide combustion air to the boilers, and the induced draft fans, which extract products of combustion from the boilers, are not large enough to allow any of the boilers to fire 100% blast furnace gas (BFG). Because of this, supplementation with mixed gas and/or fuel oil is frequently required. Larger fans will allow BFG to be burned more efficiently, however, the larger fans will not result in increases in the maximum heat input rate capacity for BFG, mixed gas or fuel oil. To minimize risk of catastrophic failure and improve safety, US Steel will install two new computerized instrumentation and control systems on each boiler. Each boiler will have a combustion control system, which will continuously control the air fuel mixture which will provide improvement to the combustion process. A new burner management system, which will continuously monitor conditions within each boiler and interrupt fuel flow in the event of a problem, such as boiler flame out or failure in the feedwater system.

The Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(I)(3). The source may begin operation upon issuance of the source modification approval.



Mr. Jim Alexander U.S. Steel - Gary Works One North Broadway Gary, IN 46402-3199

Re: 089-11953

First Administrative Amendment to Minor Source Modification No. 089-10551-00121

Dear Mr. Alexander:

U.S. Steel - Gary Works was issued a Minor Source Modification, No. 089-10551-00121, on February 10, 1999, which allowed a change in the method of operation of an existing 400 ton per hour petroleum coke crusher to utilize the crusher as a secondary frozen coal crusher operating at the rate of 1200 tons per hour. An application to amend the minor source modification to allow the crusher to be utilized as a coal crusher without reference to frozen coal was received on February 29, 2000. Pursuant to 326 IAC 2-7-11, the Minor Source Modification is hereby amended as follows:

- A.2. Emission Units and Pollution Control Equipment Summary, Page 3 of 16:
- (a) a change in the method of operating an existing 400 ton per hour petroleum coke crusher located inside the existing coal blending building to operate as a second frozen coal breaker at a rate of 1200 tons per hour. The petroleum coke crusher is a totally enclosed hammer mill.

# Facility Description, Page 15 of 16:

a change in the method of operating an existing 400 ton per hour petroleum coke crusher located inside the existing coal blending building to operate as a second frozen coal breaker at a rate of 1200 tons per hour. The petroleum coke crusher is a totally enclosed hammer mill.

# D.4 Visible Emissions, Page 15 of 16:

Pursuant to the New Source Performance Standards (NSPS), Part 60.250 through 60.254, Subpart Y, "Standards of Performance for Coal Preparation Plants", visible emissions from the petroleum coke crusher while in service as a frozen coal breaker shall not exceed 20% opacity.

During review of US Steel's amendment request, an error in rule applicability for particulate matter was discovered in the Minor Source Modification. Condition D.1 incorrectly references 326 IAC 6-3 as the rule limiting particulate matter emissions. Because US Steel is located in Lake County, 326 IAC 6-1 is the correct rule for limiting particulate matter emissions from this source. Therefore, the following change has been made to permit Condition D.1 (Page 15 of 16):

# D.1 Particulate Matter Emission Limitations [326 IAC 6-1-2]

(a) — Particulate matter (PM) emission from the petroleum coke crusher in service as a frozen coal breaker shall not exceed the allowable particulate matter emission rate of 79.97 pounds per hour as determined by the following equation:

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Page 2 of 2 First Administrative Amendment No. 089-11953-00121

E = 55.0 x P<sup>e-11</sup> 40 where E = emission rate in pounds per hour
P = process weight rate in tons per hour
P = 1200

- (a) The petroleum coke crusher in service as a coal crusher shall not discharge into the atmosphere particulate matter in excess of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grain per dry standard cubic foot (dscf).
- (b) Any change or modification which may increase the potential to emit of PM or PM<sub>10</sub> to 25 or 15 tons per year or more from the equipment covered in this minor source modification must be approved by the Office of Air Management (OAM) before such change may occur.

All other conditions of the Minor Source Modification shall remain unchanged and in effect. Please attach a copy of the amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Rachel Meredith at (800) 451-6027, press 0 and ask for Rachel Meredith or extension 3-5691, or dial (317) 233-5691.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Management

# Attachments RLM

cc:

File - Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Rick Massoels
Compliance Data Section - Karen Nowak
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
TV File - 089-7663-00175





# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue P.O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.state.in.us/idem

August 3, 2001

Mr. Jim Alexander U.S. Steel Company One North Broadway Street Gary, IN 46402

Re: Exempt Construction and Operation Status, 089-11500-00121

Dear Mr. Alexander:

The application from U.S. Steel, received on October 27, 1999, and additional information from a meeting on November 4, 1999, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Grand Calumet River Sediment Remediation Program, to be located at One North Broadway Street, Gary, Indiana, is classified as exempt from air pollution permit requirements:

A Grand Calumet River Sediment Remediation Program, which will involve the removal of sediments from the Grand Calumet River and the transmission of these sediments to a RCRA Corrective Action Management Units (CAMU), identified as Unit 1 and Unit 2.

# Project Background:

In 1990, U.S. Steel entered into a Clean Water Act Consent Decree with U.S. EPA concerning wastewater discharges from the Gary Works facility. Upon completion of the characterization study submitted to U.S. EPA in January 1993, U.S. Steel concluded that the Grand Calumet River and the surrounding environment would best be served by implementing a Sediment Remediation program. As part of the 1998 Clean Water Act Consent Decree, U.S. Steel submitted a Statement of Work for the expanded Grand Calumet River Sediment Remediation Plan to U.S. EPA on July 20, 1995.

# Project Details:

The Grand Calumet River Sediment Remediation Program involves removal of non-native sediments from the river channel by hydraulic dredging methods and delivery of the dredge slurry by a pipeline to the CAMU. The program encompasses an approximate 5-mile reach of the Grand Calumet River from the headwater culvert to a point 500 feet upstream of the Gary Sanitary District's outfall. Sediment removal will be limited to the non-native sediment taken from the river channel, with allowances for incidental sloughing from "soft-side" areas of the river bank and approximately 6 inches of overdredging. The approximately 5-mile reach of the Grand Calumet River has been divided into 36 intervals or Transects varying from 500 to 1,000 feet.

The total in-place volume of non-native sediments to be dredged from the Grand Calumet River is currently estimated to be approximately 746,000 cubic yards. This estimate includes the volume of in-place non-native materials, soft-side materials in Transects 26 through 36 that may slough into the river during dredging, and 6 inches of overdredging.



U.S. Steel, Co. Gary, Indiana Permit Reviewer: Lynn Riddle

The CAMU will be constructed with two units. Unit 1 will be a 7-acre area which will receive the TSCA and RCRA regulated sediments from Transcts 1 though 11 and Transect 17 Horizon 1. Unit 2 will occupy a 29-acre area and will receive non-native sediments from the open water dredging in Transects 12 through 36.

Non-native river sediment from Transects 1 through 11, which contain TSCA and RCRA regulated sediments, will be hydraulically dredged from within river isolation cells formed by upstream and downstream bulkheads. This river sediment will be dredged and delivered to the CAMU in a slurry through a pipe and be deposited in Unit 1. Sediments in the isolation cells will be removed via two-dredge passes. After the second pass, water is conveyed to a project-specific water treatment plant whre it is anticipated the water will undergo carbon treatment prior to discharge through an NPDES outfall. Transects 12 through 36 will be hydraulically dredged during open-channel flow conditions after dredging of Transect 17, Horizon 1 has occurred, and concurrently with Transects 1 through 11. Sediment from 12 through 36 will be conveyed via a pipe and deposited in Unit 2. The effluent from Unit 2 of the CAMU will undergo chemically assisted clarification prior to being discharged through an NPDES outfall.

The following rules or conditions are applicable to the Grand Calumet River Sediment Remediation Program:

- (1) 326 IAC 6-4-2 (Fugitive Dust Emissions: emission limitations)

  Pursuant to 326 IAC 6-4-2, a source or sources generating fugitive dust shall be in violation of this rule if any of the following criteria are violated:
  - (a) A source or combination or sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = 100 (R - U)/U$$

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

(b) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$Pr = (1.5 \pm N) P$$

Where N = Fraction of fugitive dust that is respirable dust; P = allowable percent-age increase in dust concentration above background; and P = no value greater than sixty-seven percent (67%).

- (c) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a a sixty (60) minute period.
- (d) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (a), (b), or (c) of this section.

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U.S. Steel, Co. Gary, Indiana Permit Reviewer: Lynn Riddle

- (2) 326 IAC 5-1-2(2) (Opacity Limitations)
  Pursuant to 326 IAC 5-1-2(2)(B) and 326 5-1-2(2)(C) (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (a) Opacity from a facility located in Lake County shall not exceed an average of twenty percent (20%), any one (1) six (6) minute averaging period unless otherwise specified in 326 IAC 6-1-10.1.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document. The potential emissions from the Grand Calumet River Sediment Removal Program determined from the submitted calculations include: 1.38 tons per year Volatile Organic Compounds (VOC), 1.38 tons per year Hazardous Air Pollutants (HAPs), and 1.15 tons per year Benzene - the highest single HAP. Therefore, pursuant to 326 IAC 2-1.1-3, the Grand Calumet River Sediment Removal Program is an exempt activity.

U.S. Steel has applied for a Title V permit, which has not yet been issued. All applicable rules and requirements from previously issued permits will be in effect for all of the equipment located at the source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely

Paul Dubenetzky, Chief

Permits Branch

Office of Air Management

**GLR** 

Attachments: Calculations

cc: File - Lake County

Air Compliance - Bob Simmons
Northwest Regional Office
Lake County Health Department
Permit Tracking - Janet Mobley
Technical Support and Modeling -

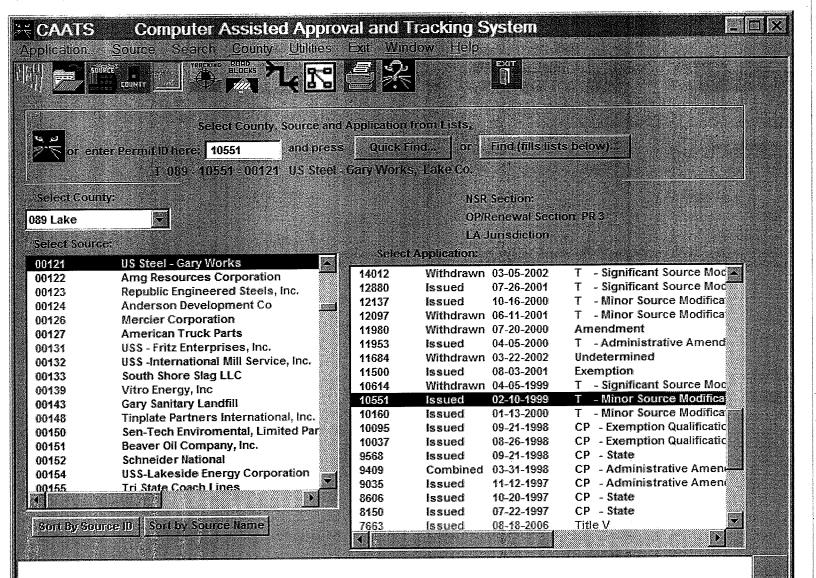
Technical Support and Modeling - Michele Boner Compliance Data Section - Karen Nowak

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U.S. Steel, Co. Gary, Indiana Permit Reviewer: Lynn Riddle Page 4 of 4 089-11500-00121

# Appendix A:

U.S. Steel calculations are attached to Exemption (173-11284-00005).



U. S. Steel - Gary Works Gary, Indiana Permit Reviewer: Bryan Sheets Page 3 of 19 Minor Source Mod #: 089-10160 Plant ID: 089-00121

### **SECTION A**

#### SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

# A.1 General Information

The Permittee owns a steel mill.

Responsible Official:

James Alexander

Source Address: Mailing Address: One North Broadway, Gary, Indiana 46402 One North Broadway, Gary, Indiana 46402

SIC Code:

3312

County Location:

Lake

County Status:

Nonattainment for ozone, PM-10 (City of Gary), and SO<sub>2</sub> (City of Gary) Major source, under PSD Program, Emission Offset Program, and Part

Source Status: Major source 70 Program

# A.2 Emission Units and Pollution Control Equipment Summary

This permit is to modify the Turboblower Boiler House (TBBH) as follows:

(a) Replace existing BFG burners in previously permitted TBBH boiler no. 6 with new, larger burners. This modification will increase the heat input capacity of the boiler from 560 to 710 million Btu per hour while combusting BFG, but heat input capacity will remain unchanged combusting natural gas. This modification will allow the boiler to increase the combustion of BFG while reducing the equivalent amount flared at the BFG flare stacks. The modification will also remove the ability of boiler no. 6 to utilize no. 6 fuel oil and COG. This boiler is not attached to any air pollution control devices and exhausts through an individual stack, identified as TBBH-6.

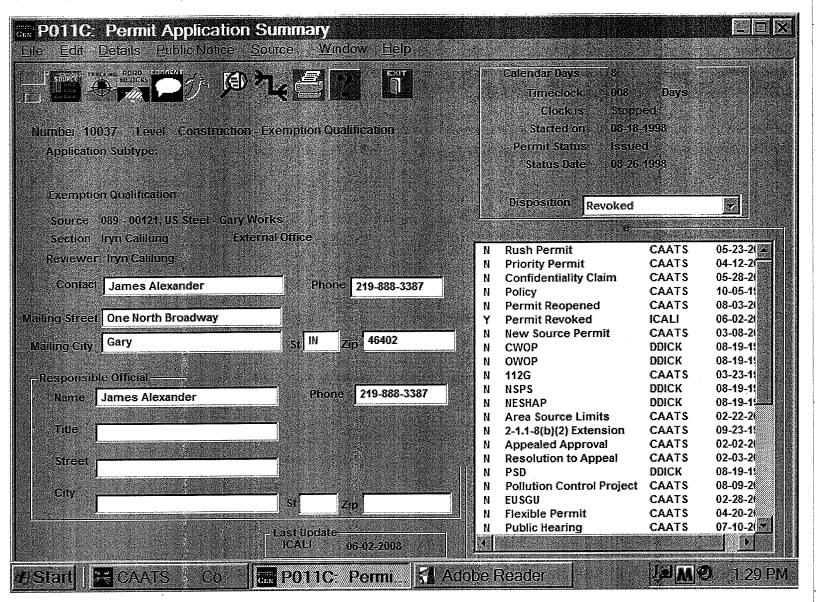
# A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

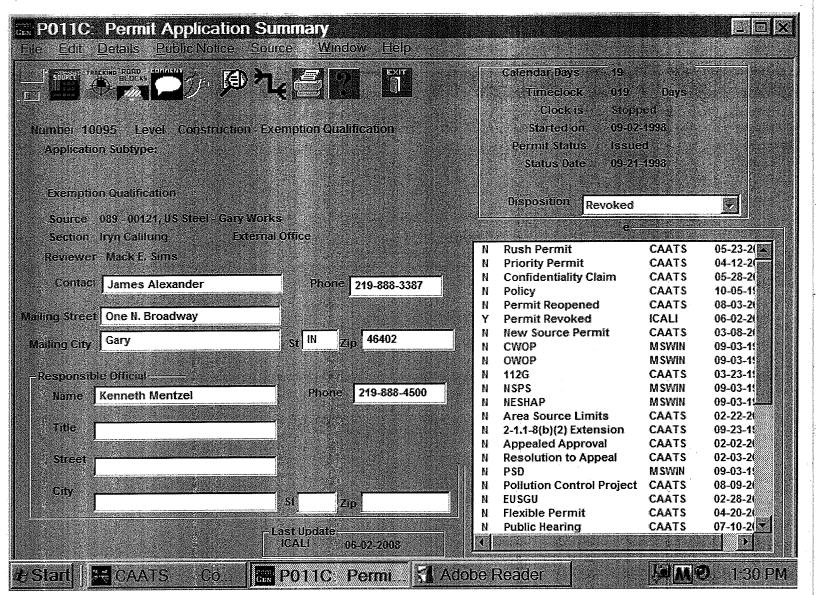
This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability because it is a major source, as defined in 326 IAC 2-7-1(22). This source has submitted its Part 70 (T-089-7663-00175) application on December 13, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

# A.4 Prior Permit Conditions Superseded [326 IAC 2]

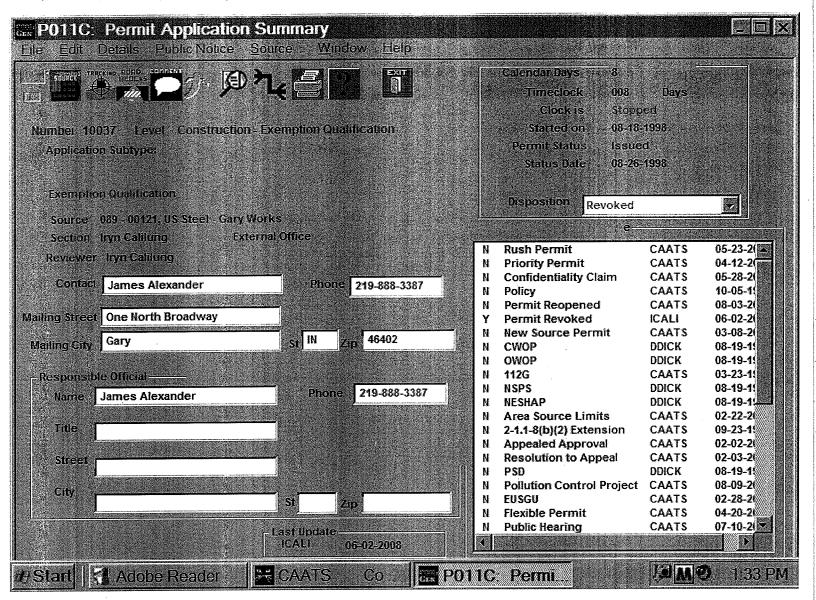
The terms and conditions of this permit incorporate all the current applicable requirements for TBBH boiler no. 6, and supersede all terms and conditions of the prior operation permits issued for this facility.







" 00003.3



Page 12 of 17 CP-089-9568 ID-089-00121

# SECTION D.1

# **FACILITY CONDITIONS**

- (a) allow Turboblower Boiler House (TBBH) boiler no. 4A to burn natural gas at the maximum heat input rate of 244 MMBtu/hr
- (b) allow Turboblower Boiler House (TBBH) boiler no. 4A to burn coke oven gas at 244 MMBtu/hr.

This facility is not attached to any air pollution control devices and exhausts through a stack, identified as S-1.

# **Emissions Limitation and Standards**

# D.1.1 Nitrogen Oxides (NO<sub>x</sub>) [40 CFR Part 60, Subpart Db] [ 326 IAC 12]

Pursuant to 40 CFR Part 60, Subpart Db, and 326 IAC 12 (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units),  $NO_x$  emissions from the TBBH boiler no. 4A shall not exceed 0.20 pound per million British Thermal Units (Ib/MMBtu) when the boiler is burning natural gas only. This is equivalent to 48.8 pounds per hour of emissions at a maximum heat input rate of 244 MMBtu per hour. This limit shall not apply in situations where the boiler is burning any combination of natural gas and coke oven gas or coke oven gas by itself.

D.1.2 Particulate Matter less than 10 microns (PM-10) [Variance Decision dated June 5, 1998]

Pursuant to the Variance Decision dated June 5, 1998, PM-10 emissions from the TBBH boiler no. 4A shall not exceed 0.012 pound per million British Thermal Units (lb/MMBtu). This limit is equivalent to 2.90 pounds per hour at a maximum heat input capacity of 244 MMBtu/hr.

The above limit shall be valid only until the Variance Decision expires on June 23, 1999. Unless the revisions to rules 326 IAC 6-1-10.1 (Lake County PM-10 Emission Requirements) have been approved, the effective date of the Variance Decision has been extended, or a new Variance Decision has been issued by this date, the TBBH boiler no. 4A shall be subject to the limitations under rule 326 IAC 6-1-10.1 (Lake County PM-10 Emission Requirements). The Permittee shall apply for a permit modification thirty (30) days prior to June 23, 1999 to incorporate the appropriate PM-10 limitation existing during that time.

### D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [Variance Decision dated June 5, 1998]

Pursuant to the Variance Decision dated June 5, 1998,

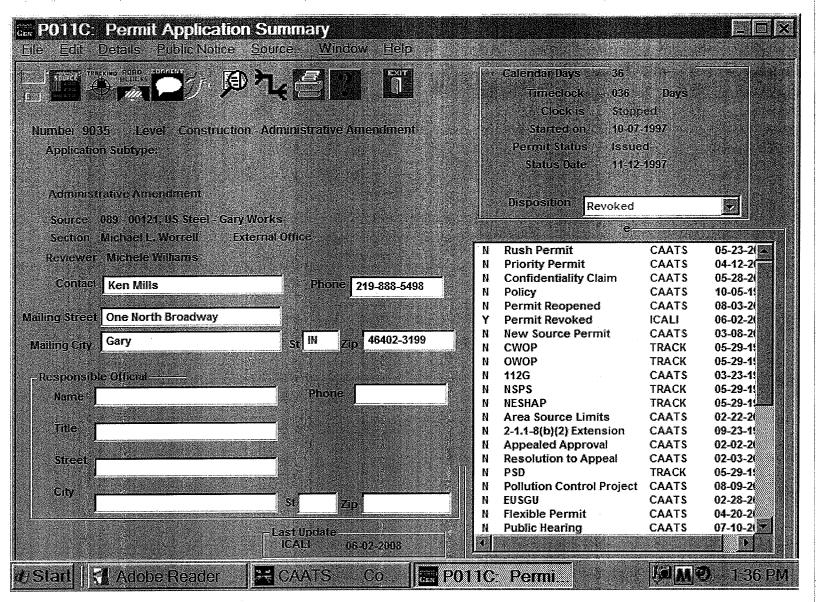
- (a) SO<sub>2</sub> emission from the TBBH boiler no.4A shall not exceed 1.02 lbs/MMBtu when the coke oven gas desulfurization facility is not operating. This is equivalent to 248.9 lbs/hr at a maximum heat input capacity of 244 MMBtu/hr.
- (b) SO<sub>2</sub> emission from the TBBH boiler no.4A shall not exceed 0.260 lb/MMBtu when the coke oven gas desulfurization facility is operating. This is equivalent to 63.5 lbs/hr at a maximum heat input capacity of 244 MMBtu/hr.

The above limits shall be valid only until the Variance Decision expires on June 23, 1999. Unless the revisions to rule 326 IAC 7-4-1.1 (Lake County  $SO_2$  Emission Limitations) have been approved, the effective date of the Variance Decision has been extended, or a new Variance Decision has been issued by this date, the TBBH boiler no. 4A shall be subject to the limitations under rule 326 IAC 7-4-1.1 as currently written. The Permittee shall apply for a permit modification thirty (30) days prior to June 23, 1999 to incorporate the appropriate  $SO_2$  limitation existing during that time.





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# CONSTRUCTION PERMIT OFFICE OF AIR MANAGEMENT

# U.S. Steel - Gary Works One North Broadway Gary, Indiana 46402

is hereby authorized to construct

(a)	hydrogen atmosphere batch annealing furnaces including three fixed burner bases and two
` '	movable heating hoods, with a total heat input capacity of 10.26 million British Thermal
	Units per hour;

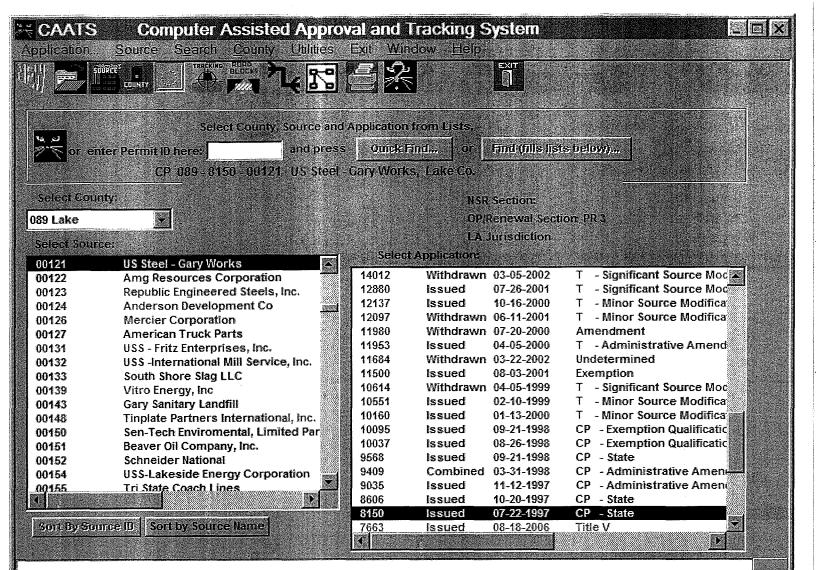
(b)	one (1) plate mill heat treatment furnace with a maximum heat input capacity of 56.5 million
	British Thermal Units per hour

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-089-8606-00121				
Issued by:	Issuance Date:			
Paul Dubenetzky, Branch Chief Office of Air Management				

**Construction Conditions** 

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels, Jr. Governor

Thomas W. Easterly Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

TO:

Interested Parties / Applicant

DATE:

August 17, 2006

RE:

US Steel - Gary Works / 089-7663-00121

FROM:

Nisha Sizemore Chief, Permits Branch Office of Air Quality

# Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:



- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency 401 M Street Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels, Jr. Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204-2251 (317) 232-8603 (800) 451-6027 www.in.gov/idem

# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

US Steel - Gary Works One North Broadway Gary, Indiana 46402

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T089-7663-00121					
Original signed by: Nisha Sizemore, Branch Chief	Issuance Date: August 18, 2006				
Office of Air Quality	Expiration Date: August 18, 2011				

An Equal Opportunity Employer

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**Facility Description [326 IAC 2-7-5(15)]:** Four (4) Blast Furnaces, designated as Blast Furnace No.4, Blast Furnace No. 6, Blast Furnace No. 8 and Blast Furnace No. 14 (continued):

- (g) One (1) blast furnace gas distribution system consisting of instrumentation and valves designed to limit the maximum pressure through the distribution system by venting excess blast furnace gas to the three (3) bleeder stacks equipped with Flare No. 1 identified as BG6073, constructed before 1920, Flare No. 2, identified as BG6074 constructed before 1920 and Flare No. 4 identified as BG6075, constructed in 1974.
- (h) One (1) iron beaching process, constructed prior to 1965, identified as IMIB0378.
- (i) One (1) transfer ladle maintenance operation, constructed prior to 1965, identified as, IMVM0375.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.7.1 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]
  - (a) The provisions of 40 CFR 63 Subpart A General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected sources, the No. 4 Blast Furnace casthouse, No. 6 Blast Furnace casthouse, No. 8 Blast Furnace casthouse and No. 14 Blast Furnace casthouse, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.

# D.7.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6.8-2-38]

Pursuant to 326 IAC 6.8-2-38, PM<sub>10</sub> emissions shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Blast Furnace No. 4 stoves Stack IA6160 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Blast Furnace No. 6 stoves Stack IB6168 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Blast Furnace No. 8 stoves Stack IC6175 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Blast Furnace No. 14 stoves Stack ID6184 shall not exceed 0.029 pound per MMBtu of heat input and a total of 20.40 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Number 14 Blast Furnace Casthouse Baghouse Stack ID6187shall not exceed 0.0090 grains per dry standard cubic feet and 38.57 pounds per hour
- (f) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes stack serving, and to each stack of multiple stacks serving multiple facilities when the facility description notes each stack serving".

# D.7.3 Fugitive Dust Emission Limitations [326 IAC 6-4-2][326 IAC 6.8-10-3]

- (a) Pursuant to 326 IAC 6-4-2:
  - (1) The iron beaching and ladle maintenance generating fugitive dust shall be in violation of this rule (326 IAC 6-4) if any of the following criteria are violated:
    - (A) A source or combination of sources which cause to exist fugitive dust



concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = 100 (R) - U$$

Where

P = Percentage increase

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

(B) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in subdivision (1) of this section shall be modified as follows:

$$PR = (1.5 \pm N) P$$

Where

N = Fraction of fugitive dust that is respirable dust;

PR = allowable percentage increase in dust concentration above background; and

P = no value greater than sixty-seven percent (67%).

- (C) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (D) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.
- (2) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.
- (b) Pursuant to 326 IAC 6.8-10-3 Lake County Fugitive Particulate Matter Emissions Limitations, fugitive emissions from iron beaching and ladle maintenance generating fugitive emissions shall comply with the emissions limitations in Section C.5 Fugitive Dust Emissions.

D.7.4 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4.1-20(a)(1)(I)(J) and (K)

Pursuant to 326 IAC 7-4.1-20(a)(1)(I)(J), and (K), the SO<sub>2</sub> emissions from the No.4 Blast Furnace Stoves IAST0360, No.6 Blast Furnace Stoves IBST0361, No.8 Blast Furnace Stoves ICST0362 and No.14 Blast Furnace Stoves IDST0359 shall comply with the following when the coke oven gas desulfurization unit is not operating:

Furnace	Emission Limit lbs/MMBtu	Emission Limit lbs/hr
	<del></del>	
Blast Furnace No. 4 Stove Stack	0.115	40.25 total
Blast Furnace No. 6 Stove Stack	0.115	40.25 total
Blast Furnace No. 8 Stove Stack	0.115	37.38 total
Blast Furnace No.14 Stove Stack during periods when combusting blast furnace gas	0.134	93.50 total
Blast Furnace No. 14 Casthouse		115.0

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Baghouse Stack during periods	
when Blast Furnace No. 14	
Stoves are combusting blast	
furnace gas.	

(b) Pursuant to 326 IAC 7-4.1-20(b)(5) and (9), the SO<sub>2</sub> emissions from the No.4 Blast Furnace Stoves IAST0360, No.6 Blast Furnace Stoves IBST0361, No.8 Blast Furnace Stoves ICST0362 and No.14 Blast Furnace Stoves IDST0359 shall comply with the following when the coke oven gas desulfurization unit is operating:

Fumace	Emission Limit Ibs/MMBtu	Emission Limit lbs/hr
Blast Furnace No. 4 Stove Stack	0.115	40.25 total
Blast Fumace No. 6 Stove Stack	0.115	40.25 total
Blast Fumace No. 8 Stove Stack	0.115	37.38 total
Blast Fumace No.14 Stove Stack	0.134	93.50 total
Blast Furnace No. 14 Casthouse Baghouse Stack		115.0

# D.7.5 Carbon Monoxide (CO) Limitations [326 IAC 9-1-2(2)]

Pursuant to 326 IAC 9-1-2(2), no carbon monoxide shall be discharged from the No. 14 Blast Furnace IDBF0369, waste gas stream, unless the gas stream is burned in one of the following: a direct-flame afterburner, boiler or recuperative incinerator. In instances where carbon monoxide destruction is not required, carbon monoxide emissions shall be released at such elevation that the maximum ground level concentration from a single source shall not exceed twenty percent (20%) of the maximum ground one hour Indiana ambient air quality value for carbon monoxide.

# D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan of this permit, is required for these facilities and any associated control devices.

# **Compliance Determination Requirements**

#### D.7.7 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within thirty (30) months after issuance of this permit or two and one half (2  $\frac{1}{2}$ ) years from the date of the last valid compliance demonstration which ever is earlier, in order to demonstrate compliance with Condition D.7.3, the Permittee shall perform PM<sub>10</sub> testing on the No. 14 Blast Furnace Casthouse Baghouse Stack ID6187 using the appropriate methods to measure PM<sub>10</sub> as listed in 326 IAC 6.8-4-1(1) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2  $\frac{1}{2}$ ) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

# D.7.8 Sulfur Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]

To demonstrate compliance with condition D.7.5, the Permittee shall perform the Sulfur Fuel Sampling and Analysis in accordance with Section C - Sulfur Fuel Sampling and Analysis of this permit.

# D.7.9 Particulate Matter and CO Control [326 IAC 2-7-6(6)]

(a) Except as otherwise provided by statute, rule or this permit, the baghouses for PM control shall be in operation and control emissions at all times the associated coal processing or drop point conveyors are in operation.

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(1) Nos. 4, 6 and 8 Blast Furnace natural gas iron oxide fume suppression systems IA3177, IB3178, IC3179, shall be in operation in order minimize particulate matter emissions as follows:

- (A) The iron and slag runners at the No. 4 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
- (B) The iron and slag runners at the No. 6 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
- (C) The iron and slag runners at the No. 8 Blast Furnace shall be equipped with a natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
- (2) The No. 14 blast furnace Casthouse Baghouse ID3185 shall be in operation at all times during casting operations at the No. 14 Blast Furnace Casthouse is in operation.
- (3) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (b) Carbon Monoxide Emissions Control

The Blast Furnace Gas Distribution System Flare controls GC3629, GC3628 and GC3627 and bleeder stack Flare No. 1 BG6073, Flare No. 2 BG6074 and Flare No. 4 BG6075 shall be in operation and the pilot flame shall be present at all times when the No. 14 Blast Furnace, No. 4 Blast Furnace, No. 6 Blast Furnace and No. 8 Blast Furnace are in operation in order to minimize CO emissions.

# Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

# D.7.10 Visible Emissions Notations

- (a) Visible emission notations of the No. 14 Blast Furnace Casthouse Baghouse Stack ID6187 and iron beaching shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C Response to Excursions or Exceedances shall be considered a deviation of this permit.



(f) The Permittee shall comply with the most current Continuous Compliance Plan visible emission evaluation program, in accordance with Section C- Continuous Compliance Plan.

### D.7.11 Parametric Monitoring

- The Permittee shall record the pressure drop across the No. 14 Blast Furnace Cast house baghouse ID3185, at least once per day when the No.14 Blast Furnace Casthouse is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 3 to 9 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C Response to Excursions and Exceedances, shall be considered a deviation of this permit.
- (b) The Permittee shall comply with the most current Continuous Compliance Plan for the baghouse operation, recording and maintenance, in accordance with Section C-Continuous Compliance Plan.
- (c) The instrument used for determining the pressure shall comply with Section C Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

# Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

# D.7.12 General Record Keeping Requirements

- (a) To document compliance with Condition D.7.4, the Permittee shall maintain records in accordance with Section C Sulfur Dioxide SO<sub>2</sub> Record Keeping (Entire Source).
- (b) To document compliance with Condition D.7.10, the Permittee shall maintain records of once per day visible emission notations of the No. 14 Casthouse Baghouse Stack (ID6187) and the iron beaching facility when in operation.
- (c) To document compliance with Condition D.7.11, the Permittee shall maintain the records of the once per day pressure drop of the No. 14 Casthouse Baghouse during normal operation.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

### D.7.13 General Reporting Requirements

A quarterly summary report to document compliance with condition D.7.4 shall be submitted to IDEM in accordance with Section C – Sulfur Dioxide SO<sub>2</sub> Reporting Requirements (Entire Source). The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

# D.7.14 Actual to Projected Actual Applicability Test [326 IAC 2-2-2(d)] [326 IAC 2-2-3(c)]

(a) Pursuant to SSM 089-20118-00121, issued October 20, 2005, 326 IAC 2-2-2(d) and 326 IAC 2-3-2(c), the No. 14 Blast Furnace Reline Project shall not cause a significant net emission increase for any of the pollutants listed in 326 IAC 2-2-1(xx) and 326 IAC 2-3-1(qq).

The significant net emission increase shall be determined using the Actual to Projected Actual Applicability Test.

Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) are not applicable.

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- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when the new or modified equipment begins normal operation.
- (c) If there is a reasonable possibility that the No. 14 Blast Furnace Reline Project may result in a significant emission increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and 326 IAC 2-3-1 (mm)), the Permittee shall comply with the following:
  - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and 326 IAC 2-3-1(II)) at an existing emission unit, document and maintain the following records:
    - (A) A description of the project;
    - (B) Identification of any emission unit whose emissions of a regulated new source review (NSR) pollutant could be affected by the project;
    - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
      - (i) Baseline actual emissions;
      - (ii) Projected actual emissions;
      - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii); and
      - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
  - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emission unit identified in (1)(B) above; and
  - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity or the potential to emit that regulated NSR pollutant at the emission unit.

D.7.15 Volatile Organic Compounds (VOC) De Minimis [326 IAC 2-3-2(b)]

Pursuant to SSM 089-20118-00121, issued October 20, 2005 and 326 IAC 2-3-2(b), the VOC emissions increases for the five (5) calendar year period January 2000 to December 2005 plus the net emission increase from the No. 14 Blast Furnace Reline Project resulted in an emission increase less than the VOC de minimis level (25 tons per year).



# D.7.16 National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Blast Furnaces [40 CFR 63, Subpart FFFFF]

# **Title 40: Protection of Environment**

<u>PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES</u>

# Subpart FFFF—National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities

Source: 68 FR 27663, May 20, 2003, unless otherwise noted.

### What This Subpart Covers

# §63.7780 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for integrated iron and steel manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations and operation and maintenance requirements in this subpart.

# §63.7781 Am I subject to this subpart?

You are subject to this subpart if you own or operate an integrated iron and steel manufacturing facility that is (or is part of) a major source of hazardous air pollutants (HAP) emissions. Your integrated iron and steel manufacturing facility is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

#### §63.7782 What parts of my plant does this subpart cover?

- (a) This subpart applies to each new and existing affected source at your integrated iron and steel manufacturing facility.
- (b) The affected sources are each new or existing blast furnace at your integrated iron and steel manufacturing facility.
- (c) This subpart covers emissions from the blast furnace casthouse.
- (d) A blast furnace at your integrated iron and steel manufacturing facility is existing if you commenced construction or reconstruction of the affected source before July 13, 2001.
- (e) A blast furnace at your integrated iron and steel manufacturing facility is new if you commence construction or reconstruction of the affected source on or after July 13, 2001. An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

#### §63.7783 When do I have to comply with this subpart?

- ((a) If you have an existing affected source, you must comply with each emission limitation and operation and maintenance requirement in this subpart that applies to you by the dates specified in paragraphs (a)(1) and (2) of this section.
- (1) No later than May 22, 2006 for all emission sources at an existing affected source except for a



sinter cooler at an existing sinter plant.

- (2) No later than January 13, 2007 for a sinter cooler at an existing sinter plant.
- (b) If you have a new affected source and its initial startup date is on or before May 20, 2003, then you must comply with each emission limitation and operation and maintenance requirement in this subpart that applies to you by May 20, 2003.
- (c) If you have a new affected source and its initial startup date is after May 20, 2003, you must comply with each emission limitation and operation and maintenance requirement in this subpart that applies to you upon initial startup.
- (d) If your integrated iron and steel manufacturing facility is not a major source and becomes a major source of HAP, the following compliance dates apply to you.
- (1) Any portion of the existing integrated iron and steel manufacturing facility that becomes a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.
- (2) All other parts of the integrated iron and steel manufacturing facility must be in compliance with this subpart no later than 2 years after it becomes a major source.
- (e) You must meet the notification and schedule requirements in §63.7840. Several of these notifications must be submitted before the compliance date for your affected source.

# **Emission Limitations**

# § 63.7790 What emission limitations must I meet?

- (a) You must meet each emission limit and opacity limit in Table 1 to this subpart that applies to you.
- (b) You must meet each operating limit for capture systems and control devices in paragraph (b)(1) of this section that applies to you.
- (1) You must operate each capture system applied to emissions from a blast furnace casthouse at or above the lowest value or settings established for the operating limits in your operation and maintenance plan;
- (c) An owner or operator who uses an air pollution control device other than a baghouse, venturi scrubber, or electrostatic precipitator must submit a description of the device; test results collected in accordance with §63.7822 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by this subpart; a copy of the operation and maintenance plan required in §63.7800(b); and appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s). The monitoring plan identifying the operating parameters to be monitored is subject to approval by the Administrator.

### **Operation and Maintenance Requirements**

# §63.7800 What are my operation and maintenance requirements?

- (a) As required by §63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.
- (b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in §63.7790(b). Each plan must

address the elements in paragraphs (b)(1) through (5) of this section.

- (1) Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.
- (2) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- (3) Operating limits for each capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse, or to secondary emissions from a BOPF. You must establish the operating limits according to the requirements in paragraphs (b)(3)(i) through (iii) of this section.
- (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
- (ii) For each operating limit parameter selected in paragraph (b)(3)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate.
- (iii) Include documentation in your plan to support your selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7830(a), and the data used to set the value or setting for the parameter for each of your process configurations.
- (4) Corrective action procedures for bag leak detection systems. In the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:
- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
- (ii) Sealing off defective bags or filter media.
- (iii) Replacing defective bags or filter media or otherwise repairing the control device.
- (iv) Sealing off a defective baghouse compartment.
- (v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
- (vi) Shutting down the process producing the particulate emissions; and
- (5) Corrective actions procedures for venture scrubbers equipped with continuous parametric

monitoring systems (CPMS). In the event a venture scrubber exceeds the operating limit in §63.7790(b)(2), you must take corrective actions consistent with your site-specific monitoring plan in accordance with §63.7831(a).

- (6) Corrective action procedures for electrostatic precipitators equipped with COMS. In the event an electrostatic precipitator exceeds the operating limit in §63.7790(b)(3), you must take corrective actions consistent with your site-specific monitoring plan in accordance with §63.7831(a).
- (7) Procedures for determining and recording the daily sinter plant production rate in tons per hour.

### General Compliance Requirements

### §63.7810 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limitations and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, and malfunction as defined in §63.2.
- (b) During the period between the compliance date specified for your affected source in §63.7783 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.
- (c) You must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

[68 FR 27663, May 20, 2003, as amended at 71 FR 20468, Apr. 20, 2006]

#### **Initial Compliance Requirements**

# §63.7820 By what date must I conduct performance tests or other initial compliance demonstrations?

- (a) You must conduct a performance test to demonstrate initial compliance with each emission and opacity limit in Table 1 to this subpart that applies to you. You must conduct the performance tests within 180 calendar days after the compliance date that is specified in §63.7783 for your affected source and report the results in your notification of compliance status.
- (b) For each operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test or opacity observation, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in §63.7783.
- (c) If you commenced construction or reconstruction between July 13, 2001 and May 20, 2003, you must demonstrate initial compliance with either the proposed emission limit or the promulgated emission limit no later than November 17, 2003 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (d) If you commenced construction or reconstruction between July 13, 2001 and May 20, 2003, and you chose to comply with the proposed emission limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limit by November 17, 2006, or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

# §63.7821 When must I conduct subsequent performance tests?

You must conduct subsequent performance tests to demonstrate compliance with all applicable PM

and opacity limits in Table 1 to this at the frequencies specified in paragraphs (b) through (d) of this section.

- (b) For each sinter cooler at an existing sinter plant and each emissions unit equipped with a control device other than a baghouse, you must conduct subsequent performance tests no less frequently than twice (at mid-term and renewal) during each term of your title V operating permit.
- (c) For each emissions unit equipped with a baghouse, you must conduct subsequent performance tests no less frequently than once during each term of your title V operating permit.
- (d) For sources without a title V operating permit, you must conduct subsequent performance tests every 2.5 years.

# §63.7822 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?

- (a) You must conduct each performance test that applies to your affected source according to the requirements in §63.7(e)(1) and the conditions detailed in paragraphs (b) through (i) of this section.
- (b) To determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart, follow the test methods and procedures in paragraphs (b)(1) and (2) of this section.
- (1) Determine the concentration of particulate matter according to the following test methods in appendix A to part 60 of this chapter:
- (i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.
- (li) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.
- (iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.
- (iv) Method 4 to determine the moisture content of the stack gas.
- (v) Method 5, 5D, or 17, as applicable, to determine the concentration of particulate matter (front half filterable catch only).
- (2) Collect a minimum sample volume of 60 dry standard cubic feet (dscf) of gas during each particulate matter test run. Three valid test runs are needed to comprise a performance test.
- (e) For a control device applied to emissions from a blast furnace casthouse, sample for an integral number of furnace tapping operations sufficient to obtain at least 1 hour of sampling for each test run.
- (i) Subject to approval by the permitting authority, you may conduct representative sampling of stacks when there are more than three stacks associated with a process.

# §63.7823 What test methods and other procedures must I use to demonstrate initial compliance with the opacity limits?

- (a) You must conduct each performance test that applies to your affected source according to the requirements in §63.7(h)(5) and the conditions detailed in paragraphs (b) through (d) of this section.
- (b) You must conduct each visible emissions performance test such that the opacity observations

overlap with the performance test for particulate matter.

- (c) To determine compliance with the applicable opacity limit in Table 1 to this subpart for a blast furnace casthouse:
- (1) Using a certified observer, determine the opacity of emissions according to Method 9 in appendix A to part 60 of this chapter.
- (2) Obtain a minimum of 30 6-minute block averages. For a blast furnace casthouse, make observations during tapping of the furnace. Tapping begins when the furnace is opened, usually by creating a hole near the bottom of the furnace, and ends when the hole is plugged.

# §63.7824 What test methods and other procedures must I use to establish and demonstrate initial compliance with operating limits?

- (a) For each capture system subject to an operating limit in §63.7790(b)(1), you must certify that the system operated during the performance test at the site-specific operating limits established in your operation and maintenance plan using the procedures in paragraphs (a)(1) through (4) of this section.
- (1) Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a).
- (2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each opacity observation period segment.
- (3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.
- (4) Certify in your performance test report that during all observation period segments, the capture system was operating at the values or settings established in your capture system operation and maintenance plan.
- (c) You may change the operating limits for a capture system or venture scrubber if you meet the requirements in paragraphs (c)(1) through (3) of this section.
- (1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.
- (2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in Table 1 to this subpart.
- (3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (c) of this section for a control device or capture system.

# §63.7825 How do I demonstrate initial compliance with the emission limitations that apply to me?

- (a) For each affected source subject to an emission or opacity limit in Table 1 to this subpart, you have demonstrated initial compliance if:
- (1) You meet the conditions in Table 2 to this subpart; and
- (2) For each capture system subject to the operating limit in §63.7790(b)(1), you have established appropriate site-specific operating limit(s) and have a record of the operating parameter data

measured during the performance test in accordance with §63.7824(a)(1).

(c) For each emission limitation that applies to you, you must submit a notification of compliance status according to §63.7840(e).

# §63.7826 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

- (a) For a capture system applied to emissions from a blast furnace casthouse, you have demonstrated initial compliance if you meet all of the conditions in paragraphs (a)(1) through (4) of this section.
- (1) Prepared the capture system operation and maintenance plan according to the requirements of §63.7800(b), including monthly inspection procedures and detailed descriptions of the operating parameter(s) selected to monitor the capture system;
- (2) Certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan;
- (3) Submitted a notification of compliance status according to the requirements in §63.7840(e), including a copy of the capture system operation and maintenance plan and your certification that you will operate the capture system at the values or settings established for the operating limits in that plan; and
- (4) Prepared a site-specific monitoring plan according to the requirements in §63.7831(a).
- (b) For each control device subject to operating limits in §63.7790(b)(2) or (3), you have demonstrated initial compliance if you meet all the conditions in paragraphs (b)(1) through (3) of this section.
- (1) Prepared the control device operation and maintenance plan according to the requirements of §63.7800(b), including a preventative maintenance schedule and, as applicable, detailed descriptions of the corrective action procedures for baghouses and or control devices;
- (2) Submitted a notification of compliance status according to the requirements in §63.7840(e), including a copy of the operation and maintenance plan; and
- (3) Prepared a site-specific monitoring plan according to the requirements in §63.7831(a).

### **Continuous Compliance Requirements**

# §63.7830 What are my monitoring requirements?

- (a) For each capture system subject to an operating limit in §63.7790(b)(1) established in your capture system operation and maintenance plan, you must install, operate, and maintain a CPMS according to the requirements in §63.7831(e) and the requirements in paragraph (a)(1) of this section.
- (1) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.
- (b) Except as provided in paragraph (b)(3) of this section, you must meet the requirements in paragraph (b)(1) or (2) of this section for each baghouse applied to meet any particulate emission limit in Table 1 to this subpart. You must conduct inspections of each baghouse according to the requirements in paragraph (b)(4) of this section.

- (1) Install, operate, and maintain a bag leak detection system according to §63.7831(f) and monitor the relative change in particulate matter loadings according to the requirements in §63.7832; or
- (2) If you do not install and operate a bag leak detection system, you must install, operate, and maintain a COMS according to the requirements in §63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in §63.7832.
- (3) A bag leak detection system and COMS are not required for a baghouse that meets the requirements in paragraphs (b)(3)(i) and (ii) of this section.
- (i) The baghouse is a positive pressure baghouse and is not equipped with exhaust gas stacks; and
- (ii) The baghouse was installed before August 30, 2005.
- (4) You must conduct inspections of each baghouse at the specified frequencies according to the requirements in paragraphs (b)(4)(i) through (viii) of this section.
- (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
- (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- (iii) Check the compressed air supply for pulse-jet baghouses each day.
- (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
- (vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
- (vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- (viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

# §63.7831 What are the installation, operation, and maintenance requirements for my monitors?

- (a) For each CPMS required in §63.7830, you must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in paragraphs (a)(1) through (8) of this section.
- (1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust

emissions (e.g., on or downstream of the last control device);

- (2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system;
- (3) Performance evaluation procedures and acceptance criteria (e.g., calibrations);
- (4) Ongoing operation and maintenance procedures in accordance with the general requirements of §§63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
- (5) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
- (6) Ongoing recordkeeping and reporting procedures in accordance the general requirements of §§63.10(c), (e)(1), and (e)(2)(i).
- (b) Unless otherwise specified, each CPMS must:
- (1) Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data;
- (2) Provide valid hourly data for at least 95 percent of every averaging period; and
- (3) Determine and record the hourly average of all recorded readings.
- (c) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- (d) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.
- (e) For each capture system subject to an operating limit in §63.7790(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a) through (d) of this section.
- (f) For each baghouse applied to meet any particulate emission limit in Table 1 of this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (f)(1) through (7) of this section.
- (1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
- (2) The system must provide output of relative changes in particulate matter loadings.
- (3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel.
- (4) Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, "Fabric Filter Bag Leak Detection Guidance," EPA-454/R-98-015, September 1997. You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.
- (5) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the

alarm delay time.

- (6) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition.
- (7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

## §63.7832 How do I monitor and collect data to demonstrate continuous compliance?

- (a) Except for monitoring malfunctions, out-of-control periods as specified in §63.8(c)(7), associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.
- (b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.
- (c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

# §63.7833 How do I demonstrate continuous compliance with the emission limitations that apply to me?

- (a) You must demonstrate continuous compliance for each affected source subject to an emission or opacity limit in §63.7790(a) by meeting the requirements in Table 3 to this subpart.
- (b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7790(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.
- (1) Operate the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and
- (2) Monitor the capture system according to the requirements in §63.7830(a) and collect, reduce, and record the monitoring data for each of the operating limit parameters according to the applicable requirements of this subpart;
- (c) For each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by completing the requirements in paragraphs (c)(1 or (2) of this section as applicable, and paragraphs (c)(3) and (4) of this section:
- (1) For a baghouse equipped with a bag leak detection system, operating and maintaining each bag leak detection system according to §63.7831(f) and recording all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in §63.7831(f)(6), you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.
- (2) For a baghouse equipped with a COMS, operating and maintaining each COMS and

reducing the COMS data according to §63.7831(h).

- (3) Inspecting each baghouse according to the requirements in §63.7830(b)(4) and maintaining all records needed to document conformance with these requirements.
- (4) Maintaining records of the time you initiated corrective action in the event of a bag leak detection system alarm or when the hourly average opacity exceeded 5 percent, the corrective action(s) taken, and the date on which corrective action was completed.
- §63.7834 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?
- (a) For each capture system and control device subject to an operating limit in §63.7790(b), you must demonstrate continuous compliance with the operation and maintenance requirements in §63.7800(b) by meeting the requirements of paragraphs (a)(1) through (3) (4) of this section:
- (1) Making monthly inspections of capture systems and initiating corrective action according to §63.7800(b)(1) and recording all information needed to document conformance with these requirements;
- (2) Performing preventative maintenance according to §63.7800(b)(2) and recording all information needed to document conformance with these requirements; and
- (3) Initiating and completing corrective action for a baghouse equipped with a bag leak detection system or COMS according to §63.7800(b)(4) and recording all information needed to document conformance with these requirements, including the time you initiated corrective action, the corrective action(s) taken, and date on which corrective action was completed.
- (4) Initiating and completing corrective action for a venturi scrubber equipped with a CPMS or an electrostatic precipitator equipped with a COMS according to §63.7833(g) and recording all information needed to document conformance with these requirements, including the time you initiated corrective action, the corrective action(s) taken within the first 24 hours according to §63.7833(g)(1) and whether they were successful, the corrective action(s) taken within the second 24 hours according to §63.7833(g)(2) and whether they were successful, and the date on which corrective action was completed.
- (b) You must maintain a current copy of the operation and maintenance plan required in §63.7800(b) onsite and available for inspection upon request. You must keep the plans for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

## §63.7835 What other requirements must I meet to demonstrate continuous compliance?

- (a) Deviations. Except as provided in §63.7833(g), you must report each instance in which you did not meet each emission limitation in §63.7790 that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each operation and maintenance requirement in §63.7800 that applies to you. These instances are deviations from the emission limitations and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements in §63.7841.
- (b) Startups, shutdowns, and malfunctions. (1) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).
- (2) The Administrator will determine whether deviations that occur during a period of startup,

shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[68 FR 27663, May 20, 2003, as amended at 71 FR 20468, Apr. 20, 2006]

#### Notifications, Reports, and Records

#### §63.7840 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e) and (f)(4), and 63.9(b) through (h) that apply to you by the specified dates.
- (b) As specified in §63.9(b)(2), if you startup your affected source before May 20, 2003, you must submit your initial notification no later than September 17, 2003.
- (c) As specified in §63.9(b)(3), if you start your new affected source on or after May 20, 2003, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.
- (d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1).
- (e) If you are required to conduct a performance test, opacity observation, or other initial compliance demonstration, you must submit a notification of compliance status according to §63.9(h)(2)(ii).
- (1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.
- (2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2).

### § 63.7841 What reports must I submit and when?

- (a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (5) of this section.
- (1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7783 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your source in §63.7783.
- (2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.
- (3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.
- (5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of

according to the dates in paragraphs (a)(1) through (4) of this section.

- (b) Compliance report contents. Each compliance report must include the information in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.
- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).
- (5) If there were no deviations from the continuous compliance requirements in §§63.7833 and 63.7834 that apply to you, a statement that there were no deviations from the emission limitations or operation and maintenance requirements during the reporting period.
- (6) If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or continuous emission monitoring system (CEMS) was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.
- (7) For each deviation from an emission limitation in §63.7790 that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.
- (i) The total operating time of each affected source during the reporting period.
- (ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.
- (8) For each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction.
- (i) The date and time that each malfunction started and stopped.
- (ii) The date and time that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.
- (iii) The date, time, and duration that each continuous monitoring system was out-of-control as specified in §63.8(c)(7), including the information in §63.8(c)(8).
- (iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
- (vi) A breakdown of the total duration of the deviations during the reporting period including those that

are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

- (vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.
- (viii) A brief description of the process units.
- (ix) A brief description of the continuous monitoring system.
- (x) The date of the latest continuous monitoring system certification or audit.
- (xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.
- (c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in §63.10(d)(5)(ii).
- (d) Part 70 monitoring report. If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

#### §63.7842 What records must I keep?

- (a) You must keep the following records:
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
- (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
- (3) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).
- (b) For each COMS, you must keep the records specified in paragraphs (b)(1) through (4) of this section.
- (1) Records described in §63.10(b)(2)(vi) through (xi).
- (2) Monitoring data for a performance evaluation as required in §63.6(h)(7)(i) and (ii).
- (3) Previous (that is, superceded) versions of the performance evaluation plan as required in §63.8(d)(3).
- (4) Records of the date and time that each deviation started and stopped, and whether the deviation

occurred during a period of startup, shutdown, or malfunction or during another period.

- (c) You must keep the records required in §63.6(h)(6) for visual observations.
- (d) You must keep the records required in §§63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to you.

#### §63.7843 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

### Other Requirements and Information

### § 63.7850 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

## § 63.7851 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.
- (1) Approval of alternative opacity emission limits in Table 1 to this subpart under §63.6(h)(9).
- (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

### §63.7852 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on

tribroelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Basic oxygen process furnace means any refractory-lined vessel in which high-purity oxygen is blown under pressure through a bath of molten iron, scrap metal, and fluxes to produce steel. This definition includes both top and bottom blown furnaces, but does not include argon oxygen decarburization furnaces.

Basic oxygen process furnace shop means the place where steelmaking operations that begin with the transfer of molten iron (hot metal) from the torpedo car and end prior to casting the molten steel, including hot metal transfer, desulfurization, slag skimming, refining in a basic oxygen process furnace, and ladle metallurgy occur.

Basic oxygen process furnace shop ancillary operations means the processes where hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy occur.

Blast furnace means a furnace used for the production of molten iron from iron ore and other iron bearing materials.

Bottom-blown furnace means any basic oxygen process furnace in which oxygen and other combustion gases are introduced into the bath of molten iron through tuyeres in the bottom of the vessel or through tuyeres in the bottom and sides of the vessel.

Casthouse means the building or structure that encloses the bottom portion of a blast furnace where the hot metal and slag are tapped from the furnace.

Certified observer means a visible emission observer certified to perform EPA Method 9 opacity observations.

Desulfurization means the process in which reagents such as magnesium, soda ash, and lime are injected into the hot metal, usually with dry air or nitrogen, to remove sulfur.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits) or operation and maintenance requirement;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Discharge end means the place where those operations conducted within the sinter plant starting at the discharge of the sintering machine's traveling grate including (but not limited to) hot sinter crushing, screening, and transfer operations occur.

Emission limitation means any emission limit, opacity limit, or operating limit.

Hot metal transfer station means the location in a basic oxygen process furnace shop where molten iron (hot metal) is transferred from a torpedo car or hot metal car used to transport hot metal from the blast furnace casthouse to a holding vessel or ladle in the basic oxygen process furnace shop. This location also is known as the reladling station or ladle transfer station.

Integrated iron and steel manufacturing facility means an establishment engaged in the production of

steel from iron ore.

Ladle metallurgy means a secondary steelmaking process that is performed typically in a ladle after initial refining in a basic oxygen process furnace to adjust or amend the chemical and/or mechanical properties of steel.

*Primary emissions* means particulate matter emissions from the basic oxygen process furnace generated during the steel production cycle which are captured and treated in the furnace's primary emission control system.

*Primary emission control system* means the combination of equipment used for the capture and collection of primary emissions (e.g., an open hood capture system used in conjunction with an electrostatic precipitator or a closed hood system used in conjunction with a scrubber).

Primary oxygen blow means the period in the steel production cycle of a basic oxygen process furnace during which oxygen is blown through the molten iron bath by means of a lance inserted from the top of the vessel (top-blown) or through tuyeres in the bottom and/or sides of the vessel (bottom-blown).

Responsible official means responsible official as defined in §63.2.

Secondary emissions means particulate matter emissions that are not controlled by a primary emission control system, including emissions that escape from open and closed hoods, lance hole openings, and gaps or tears in ductwork to the primary emission control system.

Secondary emission control system means the combination of equipment used for the capture and collection of secondary emissions from a basic oxygen process furnace.

Sinter cooler means the apparatus used to cool the hot sinter product that is transferred from the discharge end through contact with large volumes of induced or forced draft air.

Sinter plant means the machine used to produce a fused clinker-like aggregate or sinter of fine ironbearing materials suited for use in a blast furnace. The machine is composed of a continuous traveling grate that conveys a bed of ore fines and other finely divided iron-bearing material and fuel (typically coke breeze), a burner at the feed end of the grate for ignition, and a series of downdraft windboxes along the length of the strand to support downdraft combustion and heat sufficient to produce a fused sinter product.

Skimming station means the locations inside a basic oxygen process furnace shop where slag is removed from the top of the molten metal bath.

Steel production cycle means the operations conducted within the basic oxygen process furnace shop that are required to produce each batch of steel. The following operations are included: scrap charging, preheating (when done), hot metal charging, primary oxygen blowing, sampling, (vessel turndown and turnup), additional oxygen blowing (when done), tapping, and deslagging. The steel production cycle begins when the scrap is charged to the furnace and ends after the slag is emptied from the vessel into the slag pot.

Top-blown furnace means any basic oxygen process furnace in which oxygen is introduced into the bath of molten iron by means of an oxygen lance inserted from the top of the vessel.

Windboxes means the compartments that provide for a controlled distribution of downdraft combustion air as it is drawn through the sinter bed of a sinter plant to make the fused sinter product.

#### Table 1 to Subpart FFFFF of Part 63—Emission and Opacity Limits

As required in §63.7790(a), you must comply with each applicable emission and opacity limit in the following table:

For	You must comply with each of the following .
7. Each casthouse at an existing blast furnace	a. You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf \2\ and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the casthouse or structure housing the blast furnace that exhibit opacity greater than 20 percent (6-minute average).
8. Each casthouse at a new blast furnace	a. You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.003 gr/dscf; and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the casthouse or structure housing the blast furnace that exhibit opacity greater than 15 percent (6-minute average).

\2\ This concentration limit (gr/dscf) for a control device does not apply to discharges inside a building or structure housing the discharge end at an existing sinter plant, inside a casthouse at an existing blast furnace, or inside an existing BOPF shop if the control device was installed before August 30, 2005.

## Table 2 to Subpart FFFFF of Part 63—Initial Compliance with Emission and Opacity Limits

As required in §63.7825(a)(1), you must demonstrate initial compliance with the emission and opacity limits according to the following table:

For.	You have demonstrated initial compliance if
7. Each casthouse at an existing blast	a. The average concentration of particulate
furnace	matter from a control device applied to
	emissions from a casthouse, measured
	according to the performance test procedures
	in § 63.7822(e), did not exceed0.01 gr/dscf;
	and  b. The anscitu of eccendant emissions from
	b. The opacity of secondary emissions from each casthouse, determined according to the
	performance test procedures in § 63.7823(c),
	did not exceed 20 percent (6-minute average).
8. Each casthouse at a new blast furnace	a. The average concentration of particulate
	matter from a control device applied to
	emissions from a casthouse, measured
	according to the performance test procedures
	in § 63.7822(e), did not exceed 0.003 gr/dscf;
	and
	b. The opacity of secondary emissions from
	each casthouse, determined according to the
	performance test procedures in § 63.7823(c),
	did not exceed 15 percent (6-minute average

## Table 3 to Subpart FFFFF of Part 63—Continuous Compliance with Emission and Opacity Limits

As required in §63.7833(a), you must demonstrate continuous compliance with the emission and opacity limits according to the following table:

For	You must demonstrate continuous compliance by.
7. Each casthouse at an existing blast fumace.	a. Maintaining emissions of particulate matter from a control device at or below 0.01 gr/dscf; and b. Maintaining the opacity of secondary emissions that exit any opening in the casthouse or structure housing the blast fumace at or below 20 percent (6-minute average); and c. Conducting subsequent performance tests at the frequencies specified in § 63.7821.
8. Each casthouse at a new blast furnace.	a. Maintaining emissions of fumace particulate matter from a control device at or below 0.003 gr/dscf; and b. Maintaining the opacity of secondary emissions that exit any opening in the casthouse or structure housing the casthouse at or below 15 percent (6-minute average);and c. Conducting subsequent performance tests at the frequencies specified in § 63.782

## Table 4 to Subpart FFFFF of Part 63—Applicability of General Provisions to Subpart FFFFF

As required in §63.7850, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

Citation	Subject	Applies to Subpart FFFFF	Explanation
§ 63.1	Applicability.	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3.	Units and Abbreviations	Yes	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5	Construction/Reconstruction	Yes.	
§ 63.6(a), (b), (c), (d), (e) (f), (g), (h)(2)(ii)-(h)(9)	Compliance with Standards and Maintenance Requirements.	Yes.	
§ 63.6(h)(2)(i).	Determining Compliance with Opacity and VE Standards	No.	Subpart FFFFF specifies methods and procedures for determining compliance with opacity emission and operating limits
§63.6(i)	Extension of Compliance with Emission Standards.	Yes.	
§ 63.6(j).	Exemption from compliance with Emission Standards	Yes.	
§ 63.7(a)(1)-(2)	Applicability and Performance <b>T</b> est Dates	No	Subpart FFFFF and specifies performance test applicability and dates.

§ 63.7(a)(3), (b),	Performance Testing	Yes	
(c)-(h).	Requirements.		
§ 63.8(a)(1)-(3), (b), (c)(1)-(3), (c)(4)(i)-(ii), (c)(5) and (6), (c)(7)- (8), (f)(1)-(5), (g)(1)- (4).	Monitoring Requirements	Yes	CMS requirements in § 63.8(c)(4) (i)-(ii), (c) (5)-(6), (d), and (e) apply only to COMS-
§ 63.8(a)(4).	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart FFFFF does not require flares.
§ 63.8(c)(4)	Continuous Monitoring System Requirements.	No.	Subpart FFFFF specifies requirements for operation of CMS.
§ 63.8(f)(6).	RATA Alternative	No.	
63.8(g)(5)	Data Reduction	No	Subpart FFFFF specifies data reduction requirements.
§ 63.9	Notification Requirements.	Yes.	Additional notifications for CMS in § 63.9(g) apply to COMS.
§ 63.10(a), (b)(1)- (2)(xii), (b)(2)(xiv), (b)(3), (c)(1)-(6) (c)(9)-(15), (d), (e)(1)-(2), (e)(4), (f).	Recordkeeping and Reporting Requirements.	Yes	Additional records for CMS in § 63.10(c)(1)-(6), (9)-(15), and reports in §63.10(d)(1)-(2) apply only to COMS.
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative	No.	
§ 63.10(c)(7)-(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS	No.	Subpart FFFFF specifies record requirements.
§ 63.10(e)(3)	Excess Emission Reports	No	Subpart FFFFF specifies reporting requirements
§ 63.11	Control Device Requirements.	No	Subpart FFFFF does not require flares.
§ 63.12.	State Authority and Delegations	Yes	
§ 63.13-§ 63.15	Addresses, Incorporation by Reference, Availability of Information.	Yes	

#### **SECTION D.8**

#### **FACILITY OPERATION CONDITIONS**

## Facility Description [326 IAC 2-7-5(15)]: Number 1 BOP Shop.

- (a) Two (2) Stations, identified as No. 1 and No. 2, Hot Metal Transfer and Desulfurization Stations. The Desulfurization Stations were originally constructed in 1981 and the Hot Metal Transfer Stations were originally constructed in 1965, and replaced in 1998. Each station consists of Hot Metal Desulfurization, SSDS0201, Hot Metal Transfer SSMT0203 and Slag Skimming SSSS0205. Hot metal from the blast furnaces is desulfurized and skimmed prior to charging in the steel making vessels. The maximum capacity of each station is 456 tons per hour. Each station is equipped with a local exhaust ventilation hood to capture emissions ducted to the Hot Metal Desulfurization/Skimming Stations Baghouse SS3100. The desulfurization units are equipped with nitrogen suppression around where the desulfurization lance penetrates the hood hole.
- (b) One (1) Flux handling system, identified as SSFH0206, constructed in 1965, used for unloading, temporary storage, and transfer of fluxing agents to the steel making vessels, with a maximum capacity of 80 tons per hour. Emissions are controlled by No.1, No. 2 and No. 3 baghouses SS3058, SS3059, and SS3053. Nos.1 and 2 exhaust inside the building and No. 3 discharges through stack SS6056.
- (c) Basic Oxygen Process (BOP) Vessels, constructed in 1965, consisting of BOP vessel M, identified as SSVM0234, vessel E, identified as SSVE0235 and vessel D, identified as SSVD0236, with a maximum capacity of 250 tons per hour each. Emissions are controlled by open combustion hoods and an exhaust emission hood collection system, which exhausts emissions to the Gas Cleaning Systems SS3103 and SS3104.
- (d) Two (2) gas cleaning systems SS3103 and SS3104 that process the exhaust gases from the three (3) steel making vessels consisting of three (3) quenchers, two (2) scuppers, two (2) venturi scrubbers, two (2) separators, two (2) gas coolers fitted with internal mist eliminators and two (2) induced draft fans. Emissions exhaust through stacks SS6102 and SS6103.
- (e) CASbell/OB Lancing Stations M, D and E, include the controlled argon stirring process and blowing of oxygen to maintain temperature and chemistry. Constructed in 1981, Station M, identified as SSCM0231, Station E identified as SSCE0232, and Station D identified as SSCD0233 with a maximum capacity of 250 tons per hour each. Emissions are controlled by the CASbell/OB Lancing baghouse SS3105, exhausting through Stack SS6104 and uncaptured emissions venting to the roof monitor SS6636.
- (f) One (1) Slingot Moulding Station, including the casting of bottom-poured steel ingots, identified as SSMS0227, constructed in 1965, exhausting to the roof monitor SS6637.
- (g) Nine (9) natural gas fired Ladle Preheaters and Dryers identified as No. 1 through 9, with 1 through 4, constructed in 1983, 5 and 6 constructed in 1982 and 7 through 9 construction unknown. Six (6) Preheaters with a capacity of 14 MMBtu/hr each and three (3) Dryers with a capacity of 10 MMBtu/hr each, identified as SSLD0230, exhausting through Roof Monitor SS6637.
- (h) One (1) Continuous Caster, identified as SCSC0274, constructed in 1967, including a Tundish dryer with a heating capacity of 7.0 MMBtu/hr per hour, continuously casting steel slabs with a maximum capacity of 275 tons per hour. Emissions exhaust through Roof Monitor SC6638.
- (i) One (1) fugitive emissions mitigation system at the No.1 BOP Shop, constructed in June 2002, consisting of a capture hood system ducted to a 99% efficient baghouse with a flow rate of 11,500 acfm.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

